Work Order ID 98771

98771

Friday, March 22, 2013 3:35:56 PM *N900040100* Item ID: D3955-7 Accept Setup Start **Revision ID:** Plate Item Name: 3/22/2013 **Start Qty: 24.00 Start Date: Cust Item ID: Required Date: 3/26/2013** Req'd Qty: 24.00 **Customer:** Reference: Start Run Process Plan: WWF **Approvals:** Date: Stop QC: Date: SPC (Y/N): Date: Sequence ID/ Operation Tool ID Tool # Plan Reject Set Up/ Accept Reject Insp. Work Center ID Description Stamp Qty Qty **Run Hours** Code Number **Draw Nbr Revision Nbr** D3955 Α 100 0.00 *100* Waterjet 0.00 Memo 1-Cut as per Dwg D3955 FLOW CNC Waterjet Dwg Rev: A

110

1

QC2- Inspect parts off machine FAI/FAIB':

2-Deburr if necessary

0.00

110

Quality Control

Memo

0.00

										1	DQA:	Date:		
NCR: Yes	/ No				WORK ORDER NON-O	CON	NFORM	MANCE / UI	PDATE		QA Clósed:	Date:		
Work Order:					DISPOSITION				AGAI	NST DE	PARTMENT	/PROCESS		
					Rework]		Skid-tube	Crosst	ube		Water Jet	Engineering	
Part No.					Scrap		ľ	Machining	Small	Fab	Pro	d. Eng. Coor.	Quality	
					Use-as-is		Thern	noforming	Finis	hing	Rec/Sto	re/Packaging	Other	
NCR No.					Work Order Update]		Large Fab	Compo	site		Supplier] [
										<u> </u>			!	
Root	,			Descri	ption of work order update	-	nitial	А	ction		Sign &		•	
Cause	Date	Step	Qty	(or Non-conformance	Ch	ief Eng	Des	cription		Date	Verification	QC Inspecto	or
Doc/Data													:	
Equip/Tooling												`		
Operator									!	-				
Material]					1			İ				1	

Landin	g Gear	General			1	_	
	Bending	Bend		Grain		Ovalized	Pressure/Forced
	Centre Not Concentric to O/S	BOM/Route		Hardware		Over/Under tolerance	Temperature/Cure
	Cracks	Broken/Damaged		Inspection Incomplete		Part Incorrect	Weld
	Crushed/Crimped.	Burrs		Instructions Incomplete/Unclear		Part Lost/Missing	Wrong Stock Pulled
	Cuffs	Contamination		Maintenance		Part Moved	
	Heat Treat	Countersink		Mislabeled		Positioned Wrong	
ſ	Inspection Strip in Tube	Cut Too Short		Misread		Power Loss/Surge	Other
Γ	Ripples in Bend	Drill Holes		Offset			1
Γ	Torque Waves in Extrusion	Drawing		Out of Calibration			
ſ	Turning Sequence	Finish		Out of Sequence			
. [Wave/Twist in Tube	Folio	Γ	Outside Dimensions			

FAULT CATEGORY

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H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Setup Other

Process Supplier Training Unapproved

Work Order ID 98771

Friday, March 22, 2013 3:35:56 PM

98771

Item ID:

D3955-7

Accept

N900040100

Setup Start

Revision ID:

Start Date:

Item Name: Plate

3/22/2013

QC:

Start Oty: 24.00

Req'd Qty: 24.00

Cust Item ID:

Customer:

Tool ID

Reference:

Approvals:

Required Date: 3/26/2013

Process Plan:

Date: Date: **Tooling:**

SPC (Y/N):

Date:

Date:

Run

Start

Stop

Sequence ID/

Work Center ID

120

120

Quality Control

Operation Description

QC8- Inspect parts - second check

Memo

Memo

Set Up/ **Run Hours**

0.00

0.00 B3QS

Tool # Plan

Code

Accept **Qty**

Reject Qty

Reject Number

Insp. Stamp

130

130 Packaging

Packaging

Identify as per dwg & Stock Location: 5787

0.00

0.00

24x Sp13-3-25

140

140

Quality Control

QC21- Final Inspection - Work Order Release

Memo

0.00

0.00

									·		DQA:	Date:	
NCR:	Yes / N	lo				WORK ORDER NON-O	100	NFOR	MANCÉ / UPDATE	i i	QA Closed:	Date:	1
						DISPOSITION			AG	AINST DE	PARTMENT		í
Work Orde Part I	No				· · · · · · · · · · · · · · · · · · ·	Rework Scrap Use-as-is Work Order Update		1	Machining Sman	sstube all Fab nishing posite	4	Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other
· WCIVI	VO.								<u> </u>	posite	.i	oupplie!	
Root		į				ption of work order update		nitial	Action	i	Sign &	_	1
Cause	Dat	e S	tep	Qty	. (or Non-conformance	Ch	ief Eng	Description	-	Date	Verification	QC Inspector
Doc/Data			-							1			
Equip/Tooling	Ш.			·						į.			,
Operator		1											
Material						·				1			
Setup								•					
Other		•								1			İ
Process												,	
Supplier													
Training									·				
Unapproved							<u> </u>				<u> </u>		
							AUL	T CATE	GORY	· 			1
Landi	ng Gear				(General	_	1 .			7		1. / ₅ ,
	Bendi	_				Bend	<u> </u>	Grain		-	Ovalized	. —	Pressure/Forced
		e Not Co	oncentr	ric to C	^{D/S}	BOM/Route	_	Hardwa			Over/Under		Temperature/Cure
	Crack					Broken/Damaged	\vdash	1	on Incomplete		Part Incorre		Weld
,		ed/Crim	nped.			Burrs	<u> </u>	4	ions Incomplete/Unclear	¦	Part Lost/M	issing	Wrong Stock Pulled
	Cuffs					Contamination		Mainte		-	Part Moved		
	Heat '					Countersink		Mislabe		; 	Positioned \	_	1
	Inspe	ction St	rip in Tu	ube	<u> </u>	Cut Too Short	_	Misread	i	. L	Power Loss/	Surge	Other
	Ripple	es in Ber	nd			Drill Holes	\perp	Offset		1			-
	Torqu	e Wave	s in Ext	rusion	1	Drawing	1	Out of (Calibration				

Out of Sequence
Outside Dimensions

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Turning Sequence

Wave/Twist in Tube

Finish

Folio

Picklist Print

Friday, March 22, 2013 3:35:55 PM

Work Order ID:

98771

Parent Item:

D3955-7

Parent Item Name:

Plate

Start Date: 3/22/2013

Required Date: 3/26/2013

Start Qty: 24.00

Required Qty: 24.00

Comments:

IPP RevA: New issue DD verified by:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M304S11GA 304/316 0.125 Sheet		Purchased	No				sf	233.2600		8.9557895	5 N	13.0	B.23
				Location		Loc Qty	<u>Lo</u>	c Code					
•				MAT020		233.26							
				12252	21	41.26							
				1 24445	5	192							

age 1

NCR:	Yes	/ No				WORK ORDER NON-	COI	NFORM	MANCE / UPDATE	!	QA Closed:	Date	
													=.
Work Ord	er:					DISPOSITION		1	AGA	MINST DE	PARTMENT	/PROCESS	
	•					Rework] .		Skid-tube Cross	tube		Water Jet	Engineering
Part f	۷o.					Scrap		•	· i	ll Fab	⊣	d. Eng. Coor.	Quality
NGD						Use-as-is		1	~ —	shing	Rec/Stor	re/Packaging	Other
NCR I	NO.					Work Order Update	ٔ		Large Fab Comp	osite[J	Supplier	
Root					Descri	ption of work order update		Initial	Action		Sign &		
Cause	\Box	Date	Step	Qty	(or Non-conformance	Ch	nief Eng	Description		Date	Verification	QC Inspector
Doc/Data			į							1			'
Equip/Tooling										i			i i
Operator										!			
Material	Ш	,								1			
Setup											·		1
Other										İ			
Process	Ш			,						1			ľ
Supplier	Ш		1							İ			
Training													
Unapproved							<u></u>			<u> </u>	<u> </u>		
							AUI	LT CATE	GORY	<u> </u>			
Landi	_					General		J			٦	Г	¬-
	-	Bending				Bend	\vdash	Grain		; <u> </u>	Ovalized		Pressure/Forced
	-	Centre No	ot Concer	ntric to	o/s	BOM/Route	\vdash	Hardwa		i	Over/Under	⊢	Temperature/Cure
	\vdash	Cracks			<u> </u>	Broken/Damaged	-	- 1 '	ion Incomplete	! 	Part Incorre	-	Weld
	\vdash	Crushed/0	Crimped.			Burrs	\vdash	- i	ions Incomplete/Unclear	¦	Part Lost/Mi	issing [Wrong Stock Pulled
	-	Cuffs			<u> </u>	Contamination	-	Mainte		<u> </u>	Part Moved	•	
	\vdash	Heat Trea			<u> </u>	Countersink	\vdash	Mislabe			Positioned V	, ,	704
	-	Inspection		Tube	<u> </u>	Cut Too Short	-	Misread	i I		Power Loss/	Surge [Other
		Ripples in			<u> </u>	Drill Holes	-	Offset					
	ll	Torque W	aves in E	xtrusio	n	Drawing	1	Out of 0	Calibration				

Out of Sequence
Outside Dimensions

DQA:

Date:

Turning Sequence

Wave/Twist in Tube

Finish

Folio

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8 Ø0.201 2 PL D R1.00 -€ SYM 29° 1.31 6.886 - 10.75

D3955-X PLATE

98771

	Genera	al Table	
P/N	T (in)	T (GA)	WEIGHT (lbs)
D3955-5	0.060	16	0.64
D3955-7	0.120	11	1.28

NOTES:
1) MATERIAL: AISI 304/316 STAINLESS STEEL SHEET, T (GA) THICK (REF. DART SPEC. M304S'T'GA)
2) FINISH: NONE
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3955-X" USING FINE POINT PERMANENT INK MARKER
7) WEIGHT: SEE TABLE

DESIGN	DS	DART AEROSPACE	LTD
DRAWN	RF	HAWKESBURY, ONTARIO, CAN	IADA ·
CHECKED	1	DRAWING NO.	REV. A
MFG. APPR.	150	D3955	SHEET 3 OF 5
APPROVED	1 VM	TITLE	SCALE
DE APPR.	-##	SKIDTUBE TUNING KIT	NTS
DATE 09.0	07.21	COPYRIGHT © 2009 BY DART AEROSPA THIS DOCUMENT IS PRIVATE AND CONTIDENTIAL AND IS SUPPLIED ON THE EXP NOT TO BE USED FOR ANY PURPOSE OR COPYED OR COMMUNICATED TO ANY	RESS CONDITION THAT IT IS OTHER PERSON WITHOUT

										1	DQA:	Date:	+ 1
NCR:	es/	/ No				WORK ORDER NON-C	COI	NFOR	MANCE / UPDATE		•		
											QA Closed:	Date:	
Work Orde	or.					DISPOSITION	i		AGA	INST DE	PARTMENT	/PROCESS	
Part N	10.					Rework Scrap Use-as-is Work Order Update		Thern	Machining Smal	tube Fab shing osite	-	Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other
Root					Descri	ption of work order update		nitial	Action		Sign &		
Cause		Date	Step	Qty	(or Non-conformance	Ch	ief Eng	Description	1	Date	Verification	QC Inspector
oc/Data								<u>-</u>					
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etup													
ther										1			!
rocess										!			
upplier							l			<u> </u>			
raining							'						,
Inapproved			·							 			
						F.	AUL	T CATE	GORY				
Landi	ng (Gear				General				· _	-		
		Bending			-	Bend	L	Grain		<u> </u>	Ovalized		Pressure/Forced
		Centre No	t Concer	ntric to C	o/s	BOM/Route		Hardwa	ire	i. _	Over/Under	tolerance	Temperature/Cure
		Cracks				Broken/Damaged	L	Inspecti	ion Incomplete		Part Incorre	ct	Weld
		Crushed/0	Crimped.			Burrs		Instruct	tions Incomplete/Unclear		Part Lost/Mi	issing	Wrong Stock Pulled
		Cuffs ·				Contamination		Mainte	enance		Part Moved		i .
		Heat Trea	t			Countersink		Mislabe	eled		Positioned V	Vrong	
		Inspection	Strip in	Tube		Cut Too Short		Misread	d ¦		Power Loss/	Surge	Other
		Ripples in	Bend			Drill Holes		Offset	•		<u></u>		
		Torque W	aves in E	xtrusion	ı [Drawing		Out of 0	Calibration		_		
		Turning Se	equence			Finish		Out of S	Sequence				
·		Wave/Twi	ist in Tub	e		Folio	Γ	Outside	e Dimensions				

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DART AEROSPACE LTD	Work Order:	98771
Description: Plate	Part Number:	D3955-7
Inspection Dwg: D3955 Rev: A		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

X First Article Prototype

Drawing Dimension Accept Reject Method of Inspection Comments	
1.31 +/-0.030	
1.31	
10.75 +/-0.030 10.75 \ \ \ 6.886 \ +/-0.010 6.884 \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	
6.886 +/-0.010 6-884 V WWN 4.75 +/-0.030 4.755 V WWN 0.120 +/-0.010 0.117 V WWN	
4.75 +/-0.030 4.755 V VIVV 0.120 +/-0.010 0.117 V VIVV	
0.120 +/-0.010 0.117 \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	•
	<u> </u>

Measured by:	when	Audited by:	SmP	Prototype Approval:	N/A
Date:	13.03.23	Date:	2012	Date:	N/A

Rev	Date	Change	Revised by	Approved
Α	09.07.29	New Issue	KJ 10	
В	09.11.04	Dimension 0.120 was 0.125	KJ KJ	A A

									DQA.	Date.		
NCR: Y	es / No			WORK ORDER NON-CONFORMANCE / UPDA				PDATE	QA Closed:	Date:	٠	
Work Order:					DISPOSITION		AGAINST DEPARTMENT/PROCESS					
Part No.					Rework Scrap Use-as-is		Skid-tube Crosstube Machining Small Fab Thermoforming Finishing			Water Jet d. Eng. Coor. re/Packaging	Engineering Quality Other	
NCR N	lo.			· v	vork Order Update] '''e''	Large Fab	Composite	Nec/3to	Supplier		
Root				•	work order update	Initial	E .	ction	Sign &	_		
Cause	Date	Step	Qty	or Non-conformance		Chief Eng	f Eng Description		Date	Verification	QC Inspector	
Doc/Data												
Equip/Tooling							•			× ,		
Operator [
Material		1										
Setup					!							
Other												
Process												
Supplier												
Training			1									
Unapproved												
					F	AULT CATE	GORY					
Landir	ng Gear				General				<i>y</i> .	<u>-</u>	٦	
[Bending			Bend		Grain	Grain		Ovalized		Pressure/Forced	

Hardware

Maintenance

Out of Calibration

Out of Sequence

Outside Dimensions

Mislabeled

Misread

Offset

Inspection Incomplete

Instructions Incomplete/Unclear

Over/Under tolerance

Part Incorrect

Part Moved

Part Lost/Missing

Positioned Wrong

Power Loss/Surge

Temperature/Cure

Wrong Stock Pulled

Weld

Other

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Ripples in Bend

Turning Sequence

Wave/Twist in Tube

Cracks

Cuffs

Heat Treat

Crushed/Crimped.

Inspection Strip in Tube

Torque Waves in Extrusion

Centre Not Concentric to O/S

Bend | BOM/Route

Burrs

Broken/Damaged

Contamination Countersink

Cut Too Short

Drill Holes

Drawing

Finish Folio